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EXAMINER

SHANNON, MICHAEL R

ART UNIT PAPER NUMBER

2614

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,059

Applicant(s)

JUNG, YEON TAE

Examiner

Michael R. Shannon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-27 is/are rejected.
7) ☒ Claim(s) 1,3,5,8 and 15 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20010614.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 740. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

Throughout the disclosure (abstract, specification, and claims), ground waves are referred to as "ground-way". Please correct "ground-way" to read, "ground-wave" throughout the application.

The end the paragraph that beings on page 1 and ends on page 2 states, "intelligent routers can recognize virtual group ID so as to copy the original data packet and send the recipients belongs to the virtual group". This does not make sense in the

English language and the Examiner does not understand what this statement means.

Please correct the sentence to read properly.

Appropriate correction is required.

Claim Objections

3. The claims (1 and 15) are objected to because they include reference characters, which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

4. Claim 3 is objected to because of the following informalities: Claim 3 states the limitation, "the modem", which does not have proper antecedent basis in the claim. For now, the examiner **will assume that claim 3 was meant to be dependant upon claim 2**, which would give "the modem" proper antecedent basis. Appropriate correction is required.

5. Claim 5 is objected to because of the following informalities: Claim 5 states "combiner is a an intelligent hub", this is an apparent typographical error, and should be corrected to read "combiner is an intelligent hub". Appropriate correction is required.

6. Claim 8 is objected to because of the following informalities: Claim 8, lines 2-3 refer to "64 QAM and take the data on a predetermined frequency". This does not make

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sense in the English language and, for now, is **assumed to read “64 QAM and places the data on a predetermined frequency”**. Appropriate correction is required.

7. Claim 15 is objected to because of the following informalities: Claim 15 contains the limitation “the QAM demodulator”, which does not have proper antecedent basis in the claim. For now the examiner **will assume that “the QAM demodulator” is the same as the “demodulator”**. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Regarding claim 24, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1, 5-7, and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Donahue et al (USP 6,101,180), cited by examiner.

To serve as a brief overview, the Donahue reference discloses a system for multicasting digital data to a user accessing an Internet connection. A satellite connection and an Internet connection are used to transfer and communicate high-bandwidth consuming digital content (such as video content) to and from the client terminal, so as not to place too much of a burden on the Internet if it were to be used to transfer the video content alone. The video information (once converted into IP protocol for multi-casting or IP digital data) is transmitted from a transmission site (such as a broadcasting site featuring a combiner to compress and combine signals from multiple sources into one signal) to a remote Internet point of presence (such as an ISP or Multicast Station) through a dedicated transmission channel (such as satellite). Once at the Internet point of presence, the IP digital data is multicast over a LAN line for delivery to user apparatuses.

Regarding claim 1, the claimed "webcasting system for multicasting various multimedia contents through plurality of channels in real time by employing a ground-wave technology" is met as follows:

- The claimed "plurality of broadcasting stations for providing multimedia services" is met by the file server station 100 that includes one or more file servers that can provide multimedia content [col. 7, lines 52-55 & Fig. 2].
- The claimed "combiner connected to the broadcasting stations for combining the multimedia services" is met by the inherent combiner taught

through the encapsulation step, which modulates the multimedia data to RF for transmission over one or more uplink channels of a satellite [col. 7, lines 55-57].

- The claimed “web server 300 connected to the combiner and a public network for communicating with the combiner and receiving subscription for the multimedia services” is met by the ISP (or domain C as indicated in Figure 2), which sells local access to the internet through its domain and is connected to the file server 100 (and therefore the aforementioned combiner) via satellite 55 [col. 7, lines 42-49 & Fig. 2].
- The claimed “at least one local multicasting station connected to the combiner for receiving combined data stream from the combiner” is met by the IP multicast switch of Figure 5, which is, again, connected to the aforementioned combiner (file server 100) via satellite 55. The IP multicast switch serves to demodulate and filter the received stream from the satellite and distribute the resulting data streams via an IP multicast protocol to requesting clients [col. 12, lines 40-54].
- The claimed “plurality of user terminals connected to the web server via public network” is met by the hosts (clients) 60 of Domain C [Fig. 2], which are connected to the ISP (or web server) via POTS, T1 lines, or other terrestrial links [col. 7, lines 44-49].

Regarding claim 5, the claimed “combiner is an intelligent hub” is met by the Router is 110 of Figure 4, which serves to wrap the packets of data into a transport

protocol such as HDLC, and convert the HDLC packets to the proper voltage levels [col. 11, lines 35-45 & Fig. 4].

Regarding claim 6, the claimed "combiner is an intelligent LAN switch" is again met by the Router 110 of Figure 4, which serves to wrap the packets of data received from the LAN 102 into a transport protocol such as HDLC, and convert the HDLC packets to the proper voltage levels [col. 11, lines 35-45 & Fig. 4].

Regarding claim 7, the claimed "combiner is a router" is again met by the Router 110 of Figure 4, which serves to wrap the packets of data received from the LAN 102 into a transport protocol such as HDLC, and convert the HDLC packets to the proper voltage levels [col. 11, lines 35-45 & Fig. 4].

Regarding claim 17, the claimed "method for multicasting various multimedia contents" is met as follows:

- The claimed step of "(a) subscribing for multimedia services on a web site in a web server connected to a public network" is met by the ISP's or domain's ability to setup a routing table within the routing station of the domain that indicates all of the IP addresses on the public network [col. 10, lines 1-4].
- The claimed step of "(b) registering a subscriber as a member by storing a subscriber IP and other subscriber's information" is met by the same discussion of the ISP's or domain's ability to setup a routing table within the routing station of the domain that indicates all of the IP addresses on the public network [col. 10, lines 1-4].

- The claimed step of “(c) requesting channel establishment to the web server by the subscriber sending a channel establishment request signal” is met by the ability for a user to select a video/audio multicast channel to view/hear, and subsequently send a specific IGMP message over the LAN that is directed to the IPMS 120, in order to receive the multicast [col. 14, lines 42-45].
- The claimed step of “(d) verifying the subscriber by looking up a table listing the subscriber IPs” is met by the IPMS’s ability to look for subscribers who have “joined” a group and send transmission of a multi-cast signal to his/her receiver [col. 13, lines 4-19].
- The claimed step of “(e) establishing a channel if the subscriber IP is valid” is met by the IPMS’s ability to add a user to the joined group and multicast the channel to the user corresponding to that IP address [col. 13, lines 20-28].

Regarding claim 18, the claimed step of “(f) producing various multimedia data by a plurality of broadcasting stations” is met by the file server station 100 that includes one or more file servers that can provide multimedia content [col. 7, lines 52-55 & Fig. 2]. The claimed step of “(g) combining the multimedia data from the broadcasting stations by a combiner” is met by the inherent combiner taught through the encapsulation step, which modulates the multimedia data to RF for transmission over one or more uplink channels of a satellite [col. 7, lines 55-57].

Regarding claim 19, the claimed step of “(h) sending the subscriber IP and a channel establishment permission signal from the web server to the combiner” is met by the TCP/IP data that is extracted to establish which hosts (clients) within the domain have made a request to receive the data [col. 7, lines 65-67]. The claimed step of “(i) inserting the subscriber ID into a data field of the packet on the basis of the channel establishment permission signal” is, again, met by the combiner’s ability to insert the IP address of the subscriber into the TCP/IP data, in order to establish which hosts (clients) within the domain have made a request to receive the data [col. 7, lines 65-67].

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 2-4, 8-16, and 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donahue et al (USP 6,101,180), cited by examiner, in view of Kostreski et al (USP 5,729,549), cited by applicant.

To serve as a brief overview, the Kostreski reference discloses a system very much like that of the present invention, however, does not make use of multi-casting technology to conserve bandwidth. The reference combines a multi-channel broadband digital wireless broadcasting network (ground-wave technology such as wireless cable)

with a public wireless packet data network (such as wireless Internet access through an ISP gateway).

Regarding claim 2, the Donahue reference does teach all of that which is discussed above with regards to claim 1. However, the claimed "webcasting system of claim 1 further comprises a modem installed in or connected to each user terminal for communicating with the local multicasting station" is not expressly met by the Donahue reference. The claim is met by the Kostreski reference, wherein it discloses wireless packet data modems for two-way data signaling through the packet data network pictured by item 212 of Figure 9 [col. 7, lines 63-65]. The Donahue reference teaches the multi-casting system, and therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the system as taught by Kostreski (namely the modem installed at the user terminal for communicating with the RF broadcast network) into the overall multi-casting system as taught by Donahue (see claim 1, above), in order to receive audio/visual information in IP multi-cast form at the receiver and therefore enable the system to work as a multi-cast system instead of a broadcast, bandwidth hogging system.

Regarding claim 3, the Donahue and Kostreski references teach all of that which is discussed above with regards to claim 2. However, the claimed, "webcasting system of claim 2 [emphasis added by Examiner to stress assumptions made in the above claim objections] further comprises a two-way antenna connected to the modem for receiving and transmitting signals" is met by the antenna 39 of Figure 4, which is used for receiving and sending information to and from the broadcast facility [col. 8, lines 39-

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49]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a two-way antenna in order to both receive and transmit information from and to the broadcast station (or in the case of Donahue, multi-cast station).

Regarding claim 4, the Donahue and Kostreski references teach all of that which is discussed above with regards to claim 2. However, the claimed, "webcasting system of claim 2 wherein the modem is connected to the web server through a backup line for maintaining communication between the web server and the user terminal even when a wireless channel between the local multicasting station and the user terminal is broken" is met by the fact that the wireless modem is also connected to an antenna (39) for wireless packet data communication over the wireless packet network [col. 20, lines 35-38]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a connection for communication of information to the web server (as with the LAN in the Donahue reference), in order to provide a second connection just in case a wireless broadcast connection failed.

Regarding claim 8, the Donahue reference discloses all of that which is discussed above with regards to claim 1. The Donahue reference does not teach that "the local multicasting station modulates the data from the combiner by 64 QAM and take the data on a predetermined frequency". The Kostreski reference discloses the use of a 64 QAM modulation scheme at the broadcast station [col. 15, line 28]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this 64 QAM modulation scheme at the multi-cast station, in order to utilize 64 QAM technology and do so with an IP multi-cast system for conserving bandwidth.

Regarding claim 9, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 8. The Donahue reference does not teach that “the frequency has a range of 2.535 to 2.655 GHz”. The Kostreski reference teaches a 2.1-2.7 GHz spectrum [col. 19, lines 63-64], centered around 2.6 GHz [col. 2, line 8]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize this frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 10, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 9. The Donahue reference does not teach that “the frequency range is provided with a plurality of frequency channels”. The Kostreski reference discloses the use of 6MHz channels that make up the frequency range [col. 15, lines 44-46]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize multiple channels in the frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 11, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 10. The Donahue reference does not teach that “each frequency channel has 6 MHz bandwidth”. The Kostreski reference discloses the use of 6MHz channels that make up the frequency range [col. 15, lines 44-46]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize multiple 6 MHz channels in the frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 12, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 11. The Donahue reference does not teach that “the 6 MHz channel has 27 Mbps bandwidth by 64QAM”. The Kostreski reference discloses a 27 Mbits/s digital signal being modulated into a single analog channel bandwidth of 6 MHz [col. 15, lines 21-25]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize 27 Mbps bandwidth in the frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 13, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 12. The Donahue reference does not teach that “each frequency channel is provided with 27 1 Mbps sub-channels”. The Kostreski reference discloses a 27 Mbits/s digital signal being modulated into a single analog channel bandwidth of 6 MHz, each sub-channel being 6 Mbps or a mix of 1, 5, 3, and 6 Mbps encoded digital video information to total 27 Mbps [col. 15, lines 21-25]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize 27 Mbps bandwidth with 1 Mbps sub-channels in the frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 14, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 10. The Donahue reference does not teach that “at least one frequency channel is assigned for multimedia webcasting and at least one frequency channel for data communication”. The Kostreski reference discloses a frequency channel for broadband downstream information [col. 6, lines 61-

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62] and one frequency channel for upstream communication [col. 8, lines 39-49]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a frequency channel for multimedia webcasting and one for upstream communication, in order to take advantage of the two-way capabilities of a video delivery system.

Regarding claim 15, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 2. The Donahue reference does not expressly disclose any of the following except for "a controller connected to the decoder for detecting user IP and channel establishment of release signal so as to establish or release webcasting". For this element, the Donahue reference teaches that a multicast group address is specified in the received packet for designating which receivers should receive the multicast and on what channel the multicast resides [col. 13, lines 8-18].

The Kostreski reference discloses all of the following items within the modem:

- The claimed "antenna for receiving data signals from the local multicasting station and transmitting signal from the user terminal" is met by antenna 39 of Figure 4, described in column 8, lines 39-49, for receiving and transmitting video and data information to and from the station.
- The claimed "splitter connected to the antenna for splitting the received data signals" is met by the splitter/combiner 69 of Figure 7, which splits the received signals [col. 20, lines 10-19].
- The claimed "filter connected to the splitter for filtering a controlling signal and data signal" is met by the HPF 67 for filtering out the signals below the

900 MHz frequency [col. 20, lines 10-19]. Also, the BPF within the digital receiver 203 of Figure 9 serves to filter unwanted signals from being received and processed [col. 23, lines 9-20].

- The claimed “demodulator connected to the filter for demodulating the controlling signal and data signal” is met by the QAM demodulator of Figure 9, which demodulates the incoming stream [col. 23, lines 17-19].
- The claimed “decoder connected to the QAM demodulator for decoding the controlling and data signal” is met by the decryptor within the decryption module 207 of Figure 9, for decrypting/decoding digital broadcast services [col. 23, lines 53-59].
- The claimed “encoder connected to the controller 720 for encoding digital signal from the user terminal” is met by the inherent teaching of transmitting a message from the receiver to the gateway 31, wherein the DET 100 can communicate with the gateway 31 for requesting real-time impulse pay-per-view. The request is sent out over the wireless packet data link and is therefore inherently digitally encoded by an encoder at the DET.
- The claimed “QAM modulator connected to the encoder for modulating encoded digital signal from the encoder and sending modulated signal to the filter” is met by the inherent modulator supplied by the modulation step discussed in column 24, lines 21-35, wherein the TIM controller 210

passes the interactive service selection to the RF modem, where it is encoded and modulated onto the assigned upstream frequency.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize all of the items in association with the modem, in order to use a modem that works with a multi-cast two-way system for communication over the data network and multi-cast network.

Regarding claim 16, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 15. Donahue does not teach that the claimed "modem is provided with a port for connecting to the web server via public network such that the channel connection is maintained even when a wireless connection is broken". The Kostreski reference meets the claim by the fact that the wireless modem is also connected to an antenna (39) for wireless packet data communication over the wireless packet network [col. 20, lines 35-38] and not only the multi-cast (or broadcast) network. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a connection for communication of information to the web server (as with the LAN in the Donahue reference), in order to provide a second connection just in case a wireless broadcast connection failed.

Regarding claim 20, the Donahue reference discloses all of that which is discussed above with regards to claim 17. The Donahue reference does not, however, disclose the step of "(j) carrying the multimedia data on a predetermined frequency band". The Kostreski reference discloses the use of a 2.1-2.7 GHz frequency band [col. 19, line 63]. It would have been obvious to one of ordinary skill in the art at the time of

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the invention to utilize this frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 21, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 20. The Donahue reference does not teach that “the frequency band is 2.535 to 2.655 GHz”. The Kostreski reference teaches a 2.1-2.7 GHz spectrum [col. 19, lines 63-64], centered around 2.6 GHz [col. 2, line 8]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize this frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 22, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 21. The Donahue reference does not teach that “the frequency band has a plurality of frequency channels”. The Kostreski reference discloses the use of 6MHz channels that make up the frequency range [col. 15, lines 44-46]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize multiple channels in the frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 23, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 22. The Donahue reference does not teach that “each frequency channel has a plurality of sub-channels”. The Kostreski reference discloses a 27 Mbits/s digital signal being modulated into a single analog channel bandwidth of 6 MHz, each sub-channel being 6 Mbps or a mix of 1, 5, 3, and 6 Mbps encoded digital video information to total 27 Mbps [col. 15, lines 21-25]. It would

have been obvious to one of ordinary skill in the art at the time of the invention to utilize a plurality of sub-channels in the frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 24, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 22. The Donahue reference does not teach that "at least one channel is assigned for downward webcasting and at least one channel for other data communication **such as** video conference, internet access". The Kostreski reference discloses a frequency channel for broadband downstream information [col. 6, lines 61-62] and one frequency channel for upstream communication [col. 8, lines 39-49]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a frequency channel for multimedia webcasting and one for upstream communication, in order to take advantage of the two-way capabilities of a video delivery system.

Regarding claim 25, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 23. The Donahue reference does not teach that "each sub-channel has a bandwidth of 1Mbps". The Kostreski reference discloses a 27 Mbits/s digital signal being modulated into a single analog channel bandwidth of 6 MHz, each sub-channel being 6 Mbps or a mix of 1, 5, 3, and 6 Mbps encoded digital video information to total 27 Mbps [col. 15, lines 21-25]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize 27 Mbps bandwidth with 1 Mbps sub-channels in the frequency spectrum, in order to stay within FCC regulations and utilize standard protocols.

Regarding claim 26, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 20. The Donahue reference does not teach the step of “propagating the multimedia data signal carried on the predetermined frequency band through air”. The Kostreski reference discloses the use of UHF signals and antenna for use in a wireless cable system. This meets the claim “propagating through air” step. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a wireless system, in order to be free from wired constraints and to provide a more universal and far-reaching system.

Regarding claim 27, the Donahue and Kostreski references disclose all of that which is discussed above with regards to claim 26. The Donahue reference does not expressly disclose any of the following except for the steps of “detecting the subscriber IP and channel establishment or release signal; and establishing or releasing channels according to the channel establishment or release signal”. For these steps, the Donahue reference teaches that a multicast group address is specified in the received packet for designating which receivers should receive the multicast and on what channel the multicast resides [col. 13, lines 8-18]. The Kostreski reference discloses all of the following steps:

- The claimed step of “receiving the multimedia data signals from the local multicasting station” is met by antenna 39 of Figure 4, described in column 8, lines 39-49, for receiving and transmitting video and data information to and from the station.

- The claimed step of “splitting the multimedia data signals according to the frequency channels” is met by the splitter/combiner 69 of Figure 7, which splits the received signals [col. 20, lines 10-19].
- The claimed step of “filtering a controlling and data signal from the multimedia data signal” is met by the HPF 67 for filtering out the signals below the 900 MHz frequency [col. 20, lines 10-19]. Also, the BPF within the digital receiver 203 of Figure 9 serves to filter unwanted signals from being received and processed [col. 23, lines 9-20].
- The claimed step of “demodulating the controlling and data signals” is met by the QAM demodulator of Figure 9, which demodulates the incoming stream [col. 23, lines 17-19].
- The claimed step of “decoding the demodulated controlling and data signals” is met by the decryptor within the decryption module 207 of Figure 9, for decrypting/decoding digital broadcast services [col. 23, lines 53-59].

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize all of these steps in association with the webcasting method, in order to use a modem that works with a multi-cast two-way system for communication over the data network and multi-cast network.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Allen et al (USP 5,892,535) disclose a configurable system for distributing media via different distribution networks

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon whose telephone number is (571) 272-7356. The examiner can normally be reached Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **(571) 272-2600**.

Michael R Shannon
Examiner
Art Unit 2614

Michael R Shannon
May 12, 2005


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600